

News (cont. from p.145)

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Geophysicists

Richard Carrigan, former program director for atmospheric chemistry in the National Science Foundation's (NSF) Division of Atmospheric Sciences, has been appointed senior science associate of the atmospheric chemistry program. *Jarvis Moyers* succeeds Carrigan as atmospheric chemistry program director.

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The transatlantic dust-transport story is well handled in two articles, one by Prospero and the other by Schütz and others. Prospero presents a good description of the characteristics, concentrations, and, by means of satellite imagery, the track of Saharan dust across the Atlantic. He expands this discussion to include concentrations of dust that have been sampled extensively from ships in the Atlantic, Pacific, and Indian Oceans. Schütz and others focus entirely on tropical North Atlantic dust transport, presenting a good summary of past work that leads them to the development of a new, more sophisticated dust-transport model. By integrating detailed meteorologic information the authors conclude that estimates of the Atlantic dust burden will have to be revised upward. They also predict fallout ranges for certain size classes that will be useful to marine sedimentologists.

The article by Greeley and others on Martian dust storms is fascinating, but has little relation to a volume predominantly concerned with the effect of dust on man. However, some of the techniques being devised to simulate dust movement under Martian gravity and atmospheric conditions may result in new approaches to studying movement of our own terrestrial dust.

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In the first paper of the first section, Gillette discusses deflation and transport in the tradition of Bagnold and gives an excellent quantitative foundation to the more descriptive articles that follow. The next article, by Jackson, is a sophisticated attempt to establish the world-wide provenance of transported dust, mainly by the use of oxygen isotopes ($^{18}\text{O}/^{16}\text{O}$). The article by Rahm and others concerning Asian dust over Alaska rambles but provides important information about the effect on the Alaskan atmosphere of material transported across the Pacific. The authors clearly differentiate between Arctic haze caused by pollution and the sporadic intrusions of Asian desert dust. These phenomena are important to understand because of their effect on radiation balance at high latitudes. I would have placed this article after the de-

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Forum

Registering Hydrologists

A nationwide attempt is being made to promote an organization which calls itself 'American Institute of Hydrology' which will register hydrologists. The announcement which was circulated mentions that a provision is being made that those responding prior to June 30, 1983, will not be required to take an examination prior to registration.

While the undersigned are not necessarily taking issue with the general concept of registration, we do object to what appears to be the almost total lack of involvement of the profession as a whole in the planning and execution of this process. To be valid, such action needs the considered advice and active involvement of representatives from the American Geophysical Union, American Society of Civil Engineers, Geological Society of America, American Water Resources Association, and all other organizations in which hydrologists make up a significant number of the membership.

As part of the National Society of Professional Engineers' (NSPE) search for the Federal Engineer of the Year, federal agencies are requested to select from among their ranks an engineer of the year. This year 27 agencies entered candidates. Among them are two AGU members: *Chih Ted Yang*, P.E., Engineer of the Year at the Bureau of Reclamation, and *James P. Bennett*, P.E., Engineer of the Year at the U.S. Geological Survey. An engineer from the David W. Taylor Naval Ship Research and Development Center was selected Federal Engineer of the Year.

The 50 NATO fellows, selected by the National Science Foundation from 350 applicants, will receive a stipend of \$1,500 a month for up to 12 months. In addition, dependency allowances and limited allowances for round-trip travel will be provided.

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In Memoriam

The following AGU members are recently deceased:

Frank Dachille, 65, died February 28, 1983. A member of the Planetary section, he joined AGU in 1977.

Stuart W. Grinnell, 73, died in November 1982. A member of the Hydrology section, he joined AGU in 1937.

Dov B. Kringold, 80, died on March 2, 1983. A Life Member of AGU, he joined the Hydrology section in 1935.

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logic significance of desert varnish, other than as a climatic indicator, escapes me. In the second article, Leathers describes the plant components of Asian dust, the most significant of which, apparently, is the *Coccolithus mima* which causes 'Valley Fever'. *Coccolithus mima* is a sometimes fatal disease in humans. *MnO* and that these constituents account for much calcite and desert varnish, respectively. The two articles by Leathers that lead the first section are interesting because of their applicability and because they both are

highly controversial. In the first article, the author takes aim on the long-held view that particulates in the atmosphere cause climatic cooling due to reflection of incoming solar radiation. With support from a number of studies, including his own, he argues that particulates in certain concentrations in some areas actually produce atmospheric warming instead of cooling. Thus warming of the atmosphere by an increase in CO_2 may actually be enhanced in the presence of moderate levels of particulates. The second article clearly points out that man may cause increased aridity and dust transport through overuse and overgrazing. Letting areas return to a natural state may well reverse such trends. A short paper by Shiklawa which describes dust-storm initiation in the South Ukraine, USSR, is tucked in among the rest of the papers in this section. The author uses his data to develop a predictive model that relates wind speed and moisture deficit to dust-storm initiation. Two papers by Nakano and others and by Wilshire and others describe dust-storm activity in California. The first documents dust movement in the Mojave Desert and the second describes the effects of an extremely violent wind storm on the San Joaquin Valley, where winds apparently attained velocities of 300 km/h and eroded soil to depths of at least 75 cm. Even more dramatic was the erosion to depths of 35–40 cm by sand blasting of coarse-grained granite bedrock; this clearly demonstrates the damage that such storms can do to structures, not to mention people. Fryear, in an article concerning loss of soil productivity, alerts the reader to the many factors, in addition to wind erosion, that may result in a decline of crop production such as loss of nutrients by cropping, in-

sects, soil-borne diseases, and water erosion. The section's final three articles mainly concern hazards due to dust on Arizona highways (Hynes and Marcus, Burrill and Hynes) and the climatic conditions responsible for the storm (Brazel and Hsu). The studies include photos of multiple car accidents due to dust storms associated often with thunderstorms. Much dust deflates from abandoned farms near highways, but much is also transported long distances from the mountains of north-central Mexico, the Mogollon rim in Arizona, and from California.

Two Tenure Track Faculty Openings in the Coastal and Oceanographic Engineering Department/University of Florida. Applications are invited for faculty positions in the area of oceanographic engineering. Candidates must have a Ph.D. degree with a strong commitment to developing research. Experience in one or more of the following areas is highly desirable: Offshore engineering, marine structure design, materials in marine environments, remote sensing applications and modeling, numerical modeling of coastal, bay and estuarine environments. Other specialties in coastal and oceanographic engineering will be considered. Rank (assistant/associate professor/assistant professor) and salaries commensurate with qualifications. Anticipated starting date of August 5, 1983. A detailed resume, academic transcript and three letters of recommendation should be sent to Dr. M. K. Ochi, Search Committee Chairman, Coastal and Oceanographic Engineering Department, 32611, Weill Hall, University of Florida, Gainesville, FL 32611. Postmark before June 30, 1983 deadline.

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Meascale Research Section of the Atmospheric Analysis and Prediction Division (AAP/PhD), Scientific and Technical Research in Boulder, Colorado is recruiting for Scientist I or II to do basic research studies on small-scale or mesoscale meteorology. The research will be selected and defined in close collaboration with the senior staff. The primary emphasis will be in advancing the fundamental understanding of important mesoscale processes and their interactions with smaller scales of motion. Both theoretical and observational studies will be encouraged; the main goal is to improve the skill of mesoscale forecasting.

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Postdoctoral Research Astronomer/

UCLA. The Space Physics Group at UCLA invites applications for a postdoctoral research position which will become available in October 1983. The position entails the analysis and interpretation of magnetospheric data from both earth and planetary origins. Experience in data analysis and the ability to undertake independent research and communicate the results of the research are required. Computer programming experience is desirable. Terms of employment and salary to be determined by the qualifications of the applicant. Inquiries should be directed to C.T. Russell, Institute of Geophysics and Planetary Physics, University of California, Los Angeles, CA 90024. Application should be accompanied by a resume, complete bibliography and at least two names of references who are well acquainted with the applicant's background and potential. UCLA is an equal opportunity/affirmative action employer.

Geology. Instructor to teach geology, geography, and physical science in public community college. Doctorate degree in geology or related field with minor in chemistry, mathematics, or computer science. Prior teaching experience at college level. Start August 1983. Salary range \$15,000 to \$18,000 for academic year. Apply to: Mrs. L. M. St. John, North Idaho College, Coeur d'Alene, Idaho 83814. An equal opportunity/affirmative action employer.

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Applicants should submit a letter of application, two letters of recommendation along with a resume, and three letters of recommendation to: Dennis Nelson, Chairman, Geology Department, Sill Ross State University, Alpine, TX 79832.

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Temporary Position: Igneous Petrology and Geophysical University of Montana. Applications are invited for one subbatical replacement at the instructor or assistant professor level. Summer and spring quarters of 1983-84 academic year. The period of contract obligation will be approximately June 1, 1984 to June 8, 1984. A graduate student will have completed a doctorate before September 1984 and anticipates completion sometime during the period of employment would be appropriate for this division.

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The position is replacing a faculty member on sabbatical and therefore is not permanent or on a tenure track. To apply send a resume and two letters of recommendation to: Arnold J. Silverman, Chairman, Department of Geology, University of Montana, Missoula, MT by May 15, 1983.

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Geological Oceanographer/Humboldt State University. One year temporary position beginning September 1983 in Oceanography Department for a geological oceanographer. Preference given to candidates who hold Ph.D. in geological oceanography and have teaching experience in the undergraduate level. Primary teaching responsibilities include offering courses at the undergraduate level in Geological Oceanography, Marine Sedimentation, Beach and Nearshore Processes, General Oceanography and Resources (non-living) of the sea. Additional responsibilities include advising seniors with Senior Research Projects and participating in the Senior Honors Projects. Candidates who are not registered with a placement office should solicit three letters of recommendation from persons familiar with their professional preparation and record. A summary of personal and professional record and a transcript of academic work are also required.

Qualified candidates should have their letter of application and professional paper sent by May 15, 1983 to Dr. Richard L. Riedel, Department of Natural Resources, Humboldt State University, Arcata, CA 95521, Telephone (707) 822-3300. Humboldt State University is an equal opportunity/affirmative action employer.

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Kazuya Fujita, Maurice Patricia Leonard-Mayer (V), Elaine Mathews (A), William Menke (S), Aristides A. Pachis (A), II, Don Pilkington (V), James D. Spahr (A), Margaret St. Peters (GP), Ole Steicher (V), Lothar Stramroda (O)

Regular Member

Roger Allen Bauer (O), Rex J. Fleming (A)

James H. Hecht (SA), James F. Kauting (A)

Paul G. Kuten (A), Richard Kattelmann (B)

Patricia Leonard-Mayer (V), Elaine Mathews (A), William Menke (S), Aristides A. Pachis (A), II, Don Pilkington (V), James D. Spahr (A), Margaret St. Peters (GP), Ole Steicher (V), Lothar Stramroda (O)

Student Member

David B. Coddington (A), Marie C. Collier (O), Christopher Condit (V), James E. Dickey (A), Karen M. Fischer (S), Eli Foufoula (H), John Fournelle (V), Roger H. G. M. Franken (A), Pete Geddes (V), Joseph Greenberg (S), Alberto E. Guinard (S), Sid Halvorsen (V), Joseph Kruger (T), Steven Lour (T), Kiffie Mangan (H), Ben G. Mursaleen (P), Robert McCabe (P), Paul Newman (A), Renée H. Panozzo (V), Robert Pawlowski (P), Jean-Yves Penit (S), Deborah Schwartz (V), Claudio Solar (S), Michael D. Sweeney (O), Tawen-Yung Tang (O), Simon T. Tse, David A. Walker (T), Steven Ward (S), John R. Webster (T), David A. Weintraub (P), Paul J. Whiteman (A), Mark A. Williams (A), Mary Leigh Wolfe (A)

Life Supporting Member

Paolo Lanzalao

Individual Supporting Member

Joseph W. Berg, Morton J. Rubin, Pierre Verdin

Associate Member

Margaret R. Condon (H), Karen McGinn (O), Will M. Ollison (A), Henry Peleg (O)

Supporting Members

AGU GIFT

Membership Applications Received

Applications for membership have been received from the following individuals. The letter after the name denotes the proposed primary section affiliation; the letter A denotes the Atmospheric Sciences section, which was formerly the Meteorology section.

Regular Member

Roger Allen Bauer (O), Rex J. Fleming (A)

James H. Hecht (SA), James F. Kauting (A)

Paul G. Kuten (A), Richard Kattelmann (B)

Patricia Leonard-Mayer (V), Elaine Mathews (A), William Menke (S), Aristides A. Pachis (A), II, Don Pilkington (V), James D. Spahr (A), Margaret St. Peters (GP), Ole Steicher (V), Lothar Stramroda (O)

Student Member

David B. Coddington (A), Marie C. Collier (O), Christopher Condit (V), James E. Dickey (A)

Karen M. Fischer (S), Eli Foufoula (H), John Fournelle (V), Roger H. G. M. Franken (A), Pete Geddes (V), Joseph Greenberg (S), Alberto E. Guinard (S), Sid Halvorsen (V), Joseph Kruger (T), Steven Lour (T), Kiffie Mangan (H), Ben G. Mursaleen (P), Robert McCabe (P), Paul Newman (A), Renée H. Panozzo (V), Robert Pawlowski (P), Jean-Yves Penit (S), Deborah Schwartz (V), Claudio Solar (S), Michael D. Sweeney (O), Tawen-Yung Tang (O), Simon T. Tse, David A. Walker (T), Steven Ward (S), John R. Webster (T), David A. Weintraub (P), Paul J. Whiteman (A), Mark A. Williams (A), Mary Leigh Wolfe (A)

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Meetings

Ahoy! Sail Back into Baltimore

for the 1983 AGU Spring Meeting

May 30-June 3

Atmospheric Sciences

Future Trends in Space and Terrestrial Gravity Measurement and Analysis Wednesday A.M., Room 319; Friday A.M., Room 319. Both parts of this session are designed to promote discussions of new gravity measuring techniques. The scope of these sessions includes the presentation of both the instrumentation and methodology of analysis. The impact of future missions, such as TOPEX and GRM, on gravity interpretation will also be discussed.

The Wednesday session will concentrate on satellite- and aircraft-based gravity gradiometers and on satellite-to-satellite tracking, with particular emphasis on the Geopotential Research Mission (GRM). The Friday session will deal with the recovery and interpretation of geopotential signals obtained through satellite altimetry.

Detection and Interpretation of Crustal Movements Thursday all day, Room 319. The morning session will feature papers on terrestrial geodetic measurements and data interpretation. Strain accumulation and release in California will be emphasized with particular focus placed on the temporal and spatial patterns of horizontal and vertical movements.

The afternoon session is devoted to geodetic measurements via space techniques. Current results on regional, inter-, and intra-continental deformations will be highlighted. Future measurement campaigns using VLBI, Laser, and GPS techniques will also be discussed.

Satellites and the Geosciences Wednesday all day, Room 317. This session reviews past and current use of satellite data in the geosciences and analyzes potential future developments. The requirement for observations is common to all the geosciences. The advent of satellite observations began a revolutionary change in the data available for research on atmospheres, the oceans, and, to a lesser extent, the geology and geophysics of the solid earth and planets.

New Observing Systems for Weather Prediction Thursday A.M., Room 321. Exciting new measurement technologies are whetting the appetites of research meteorologists as well as forecasters. These technologies promise unparalleled ability to observe the atmosphere and severe weather in time as well as in space. Most of them remotely measure atmospheric properties very rapidly over large volumes. Several share such characteristics as high data rates and high cost. Evaluation of the potential benefits of these new weather observing systems will be a key issue in this special session.

Whether to

